

Claim Amendments

1. (Currently amended) A [magnetic] head suspension assembly [including] comprising:

an air bearing slider [and] having at least one transducer [disposed on said slider] mounted thereon for transducing data that is recorded and read out from a surface of a rotating magnetic [disk drive comprising:] disc;

a single integral planar piece [of a specified thickness] comprising[.];

a load beam section formed with a narrowed end;

a flexure section having a shaped opening which defines [formed with] two [spaced narrow legs defining a cutout portion therebetween, said legs extending] flexure beams that extend in a longitudinal direction from said narrowed end of said load beam section, [and a lateral ear spaced] said flexure section further including a transverse section spaced in said longitudinal direction from said load beam section, said transverse section connecting said [legs] flexure beams;

a load point tongue extending from said narrowed end of said [narrowed] load beam section into said shaped opening, said load point tongue being disposed between said [legs of said] flexure beams [section, said tongue] and having a free end within said [flexure section,] shaped opening, said load point tongue [being formed with] having a load [dimple] supporting protrusion;

said air bearing slider being bonded to said [lateral ear] transverse section and in contact with said load [dimple; whereby] supporting protrusion such that load transfer from said air bearing slider to said single integral planar piece is effectively separated from the gimballing action of said air bearing slider [so that the pitch and roll stiffness is effectively reduced].

2. (Currently amended) An assembly as in claim 1, wherein said [head] air bearing slider has a top non-air bearing surface attached to said [flexure section] transverse section.

Claims 3-5 (canceled)

6. (Currently amended) An assembly as in claim 2, wherein said air bearing slider is about 0.0110 inch high, 0.0400 inch long and 0.0200-0.0260 inch wide.

7. (Currently amended) An assembly as in claim 2, wherein said top non-air bearing surface [of said slider] is formed with a platform and a step adjacent to said platform.

8. (Currently amended) An assembly as in claim 7, wherein said platform [of said slider] is about 0.0336 inch long and said step is about 0.0015 inch high.

9. (Currently amended) An assembly as in claim [2, including a load dimple formed in said tongue] 1, wherein said load beam section and said transverse section have a first thickness.

10. (Currently amended) An assembly as in claim 9, wherein said load [dimple] supporting protrusion is hemispherical in shape [and faces down into contact with said top surface of said slider].

11. (Currently amended) An assembly as in claim [1, wherein said single integral planar piece including said tongue is about 0.0012 to 0.0015 inch thick and

said narrow legs are about 0.0010 inch thick] 9, wherein said flexure beams have a second thickness which is thinner than said first thickness.

12. (Currently amended) An assembly as in claim 1, wherein said [load beam section is shaped as a truncated triangle] flexure beams are substantially parallel to said longitudinal direction so that said shaped opening is substantially U-shaped.

13. (Currently amended) An assembly as in [claim 1,] claims 1, 2, 6, 7, 8, 9, 10, 11 or 12, wherein said load beam section has a rear end opposite said narrowed end, and further including:

a leaf spring section attached at a first end to said rear end of said load beam section, said leaf spring section providing a load force to said air bearing slider through said load supporting protrusion; and

[including] a mount section attached to a second end of said [at the rear end of said load beam] leaf spring section for [enabling mounting said suspension] attachment to an actuator arm]; and

a leaf spring section between said rear mount section and said load beam section for providing flexibility to said suspension].

14. (Currently amended) An assembly as in claim 13, further including a swage plate joined to said mount section for [providing rigidity to said rear end of said suspension assembly] attachment to said actuator arm.

15. (Currently amended) An assembly as in claim [13, including front flanges formed along the edges of said load beam section and rear flanges formed along the edges of said rear mount sections with a hiatus between said front and rear

flanges] 1, wherein said load beam section has first and second sides, at least one of said sides having a flange integral therewith.

16. (Currently amended) An assembly as in claim 15, wherein [said front flanges are formed with shallow U-shaped channels, and electrical wiring without tubing is positioned within said channels] said flange comprises a channel which accommodates an electrical wire.

17. (Currently amended) An assembly as in claim 13, [including a cutout in] wherein said leaf spring section [for providing flexibility to said suspension] includes a trapezoidal-like opening.

18. (Currently amended) An assembly as in claim 1, [further including an aperture extension formed at the rear end of said suspension assembly for enabling attachment to an actuator of a disk drive without a separate head arm to enable pivoting of said suspension assembly] wherein said load supporting protrusion is located along a centerline of said air bearing slider.

19. (Currently amended) An assembly as in [claim 1] claims 1, 2, 6, 7, 8, 9, 10, 11 or 12, further including a damping [material on] element attached to said load beam section which reduces resonance.

20. (Currently amended) An assembly as in claim [1] 15, further including at least one load/unload tab formed [at the sides of said] on at least one of said sides of said load beam section.

21. (Original) An assembly as in claim 2, wherein said top non-air bearing surface is substantially flat.

22. (Currently amended) An assembly as in claim 21, wherein said [lateral ear] transverse section including bent sections for [contacting with said top surface of said slider] attachment to said air bearing slider.

23. (New) An assembly as in claim 1 wherein said load point protrusion is offset a distance from a centerline extending between said flexure beams.

24. (New) An assembly as in claim 23 wherein said distance is greater than zero inches, but less than or equal to 0.006 inches.

Status of Claims / Support for Claim Changes

Claim 1 (Currently amended) Support for the changes made to claim 1 is found throughout the specification and drawings. For example, Figures 1A-B, 2, 3 and 5A each show an air bearing slider 22 mounted on a head suspension formed of a single piece of planar material comprising a load beam 10 having a narrowed end. Column 4, lines 21-30 of the specification describe how the shaped opening 16 in the flexure section defines a pair of flexure beams 32 that extend in a longitudinal direction. (See also, specification col. 3, lines 55 through col. 4, line 30). The figures clearly show a transverse section 38 spaced in the longitudinal direction from the load beam section (see e.g., Figure 1B, Figure 4, and Figure 7) and connecting the flexure beams 32. The specification at col. 5, lines 50-55 also describes this claimed feature. The change to claim 1, which recites the load point tongue as extending into the shaped opening, is also clearly shown in the Figures (e.g., Figs. 3, 5A & 6A). Load transfer from the air bearing slider to the integral flexure/load beam section is described at column 4, lines 57-67.

Claim 2 (Currently amended) Support for the changes to claim 2 is found, by way of example, in Figure 5A and column 4, lines 31-40.

Claim 6 (Currently amended) Support for amended claim 6 is explicit in the specification at column 4, lines 30-40.

Claim 7 (Currently amended) The amendment to this claim is merely to correct a minor informality.

Claim 8 (Currently amended) The amendment to this claim is merely to correct a minor informality.

Claim 9 (Currently amended) Support for amended claim 9 is found in the specification at column 4, lines 12-20.

Claim 10 (Currently amended) This amendment corrects a minor informality in claim language.

Claim 11 (Currently amended) Support for amended claim 11 is explicit in the specification at column 4, lines 21-30.

Claim 12 (Currently amended) Support for amended claim 12 is shown in Figure 5B and at column 4, lines 21-30.

Claim 13 (Currently amended) Support for amended claim 13 is found in the specification at column 3, lines 56-68; column 5, lines 11-20, and Figure 2.

Claim 14 (Currently amended) Support for amended claim 14 is found in Figures 1A-B; column 5, lines 20-26 and column 6, lines 27-39 of the specification.

Claim 15 (Currently amended) Support for amended claim 15 is explicit in the specification at column 4, lines 41-52.

Claim 16 (Currently amended) Support for amended claim 16 is explicit in the specification at column 4, lines 47-49.

Claim 17 (Currently amended) Support for amended claim 17 is shown in Figure 3 by reference numeral 60.

Claim 18 (Currently amended) Support for amended claim 18 is found in the specification at column 6, lines 1-5.

Claim 19 (Currently amended) Support for amended claim 19 is found in the specification at column 4, lines 12-20.

Claim 20 (Currently amended) Support for amended claim 20 is found in the specification at column 6, lines 54-64 and in Figure 13.

Claim 22 (Currently amended) Support for amended claim 22 is found in the specification at column 5, lines 51-68.

Claim 23 (New) Support for the claim 37 is found, by way of example, in Figure 5A. Column 4, lines 30-40, which recites, "The dimple 18, may be offset, 0-0.006 inch for example, from the centerline" also supports this claim.

Claim 24 (New) Support for claim 39 is provided in the specification at column 4, lines 30-40.